AMENDMENTS TO THE CLAIMS

1. (Currently amended) A compound of the formula I or a pharmaceutically acceptable salt thereof,

formula I

$$R_4$$
 R_5
 R_2
 R_1
 R_3

wherein R¹ is selected from the group comprising consisting of hydrogen, alkyl, alkenyl, alkynyl, alkyloxy, alkyloxyalkyl, alkylthioalkyl, alkyloxycarbonyl, alkylthiocarbonyl, alkanoyl, cycloalkylalkyl, cycloalkylcarbonyl, cycloalkylalkanoyl, cycloalkylthiocarbonyl, cycloalkylalkoxycarbonyl, cycloalkylalkoxythiocarbonyl, cycloalkylthioalkyl, alkylcarbonyloxyalkyl, arylcarbonyloxyalkyl, cycloalkylcarbonyloxyalkyl, silyloxyalkyl, aralkyl, aryloxycarbonyl, arylthiocarbonyl, aralkoxycarbonyl, arylalkenyl, arylcarbonyl, arylalkylthiocarbonyl, aryloxyalkyl, arylthioalkyl, haloalkyl, hydroxyalkyl, aralkanoyl, aroyl, aryloxycarbonylalkyl, aryloxyalkanoyl, carboxyl, formyl, alkenylcarbonyl, alkynylcarbonyl, Het¹, Het^lcycloalkyl, Het^lalkyl, Het^loxyalkyl, Het^laryl, Het¹aralkyl, Het¹carbonyl, Het alkoxycarbonyl, Het alkylthiocarbonyl, Het oxycarbonyl, Het thiocarbonyl, Het alkanoyl, Het¹aralkanoyl, Het¹aryloxyalkyl, Het¹alkyloxyalkyl, Het¹arylthioalkyl, Het¹aryloxycarbonyl, Het¹aroyl, Het¹alkyloxyalkylcarbonyl, Het¹aralkoxycarbonyl, Het¹oxyalkylcarbonyl, Het¹aryloxyalkylcarbonyl, Het¹carbonyloxyalkyl, Het¹alkylcarbonyloxyalkyl, Het²alkyl; Het¹aralkylcarbonyloxyalkyl, Het²oxyalkyl, Het²alkyloxyalkyl, Het²aralkyl, Het²carbonyl, Het²oxycarbonyl, Het²thiocarbonyl, Het²alkanoyl, Het²alkylthiocarbonyl, Het²alkoxycarbonyl, Het²aralkanoyl, Het²aralkoxycarbonyl, Het²aryloxycarbonyl, Het²aroyl, Het²arylthioalkyl, Het²oxyalkylcarbonyl, Het²aryloxyalkyl, Het²alkyloxyalkylcarbonyl, Het²aryloxyalkylcarbonyl, Het²carbonyloxyalkyl, Het²alkylcarbonyloxyalkyl, Het²aralkylcarbonyloxyalkyl, cyano, aminocarbonyl, aminoalkanoyl, aminoalkyl, CR⁶=NR⁷ or

and CR⁶=N(OR⁷), with R⁶ and R⁷ being independently selected from the group comprising of hydrogen, hydroxyl, alkyl, aryl, Het¹, Het¹alkyl, Het¹aryl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylamino;

wherein R² and R³ are independently selected from the group comprising consisting of hydroxyl, alkyloxy, alkylsilyloxy, arylsilyloxy, alkyloxyalkyloxy, cycloalkyloxy cycloalkylalkyloxy, aryloxyalkyloxy, alkylcarbonyloxy, aralkyloxy, silyloxy, arylcarbonyloxy, hydroxyalkyloxy, haloalkyloxy, cycloalkylcarbonyloxy, aralkanovloxy, aroyloxy, aryloxycarbonylalkyloxy, formyloxy, Het¹alkyloxy, Het¹oxy, Het¹oxyalkyloxy, Het¹aryloxy, Het aralkyloxy, Het carbonyloxy, Het oxycarbonyloxy, Het alkanoyloxy, Het¹aralkanoyloxy, Het¹aryloxyalkyloxy, Het¹aroyl, Het²oxy, Het²alkyloxy; Het²oxyalkyloxy, Het²aralkyloxy, Het²cycloalkyloxy, Het²alkanoyloxy, Het²aralkanoyloxy, Het²carbonyloxyl, Het²aryloxy, and Het²aryloxyalkyloxy.

wherein R¹ R² and R³ are optionally unsubstituted or substituted by one or more substituents independently selected from the group eomprising consisting of alkyl, aralkyl, aryl, Het¹, Het², cycloalkyl, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen or-and amino, unsubstituted, optionally mono- or disubstituted wherein the substituents are independently selected from the group comprising consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl, cycloalkylalkyl, Het¹, Het², Het¹alkyl, Het²alkyl, Het¹amino, Het²amino, Het²alkylamino, Het thio. Het thio. Het alkylthio, Het alkylthio, Het oxy and Het oxy, OR8, SR8, SO₂NR⁸R⁹, SO₂N(OH)R⁸, CN, CR⁸=NR⁹, S(O)R⁸, SO₂R⁸, CR⁸=N(OR⁹), N₃, NO₂, NR⁸R⁹, N(OH)R⁸, $C(O)R^8$, $C(S)R^8$, CO_2R^8 , $C(O)sR^8$, $C(O)NR^8R^9$, $C(S)NR^8R^9$, $C(O)N(OH)R^9$, $C(S)N(OH)R^8$, NR8C(O)R9, NR8C(S)R9, N(OH)C(O)R9, N(OH)C(S)R8, NR8CO2R9, NR8C(O)NR9R10, and $NR^8C(S)NR^9R^{10}$, $N(OH)CO_2R^8$, $NR^8C(O)SR^9$, $N(OH)C(O)NR^8R^9$, $N(OH)C(S)NR^8R^9$, NR⁸C(O)N(OH)R⁹, NR⁸C(S)N(OH)R⁹, NR⁸SO₂R⁹, NHSO₂NR⁸R⁹, NR⁸SO₂NHR⁹, and $P(O)(OR^8)(OR^9)$,

with t being an integer between 1 and 2, and R⁸ R⁹ and R¹⁰ being each independently selected from the group eomprising consisting of hydrogen, hydroxyl, alkyl, aryl, Het¹, Het¹ alkyl, Het¹ aryl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylamino;

wherein R⁴ is selected from the group <u>eomprisingconsisting of oxo</u>, hydroxyl, alkyl, alkenyl, alkynyl, alkanediyl, alkyloxy, alkylthio, alkylamino, alkyloxyalkyl, arylcarbonylalkyl, alkanoyl, cycloalkylcarbonylalkyl,

cycloalkyl, cycloalkylakyl, cycloalkylalkino, cycloalkylalkyl, cycloalkylalkanoyl, aralkyl. arylalkenyl, arylcarbonyloxy, aryloxycarbonyloxy, aralkoxycarbonyloxy, aryloxyalkyl, haloalkyloxy, haloalkylthio, haloalkylamino, hydroxyalkyl, aralkanoyl, aryloxycarbonylalkyl, aryloxyalkanoyl, Het¹, Het¹alkyl, Het¹oxy, Het¹oxyalkyl, Het¹aryl, Het aralkyl, Het cycloalkyl, Het aryloxyalkyl, Het aroyl, Het, Het oxy, Het alkyl; Het oxyalkyl, Het²aralkyl, Het²cycloalkyl, Het²aryl, Het²alkanoyl, Het²aralkanoyl, Het²aroyl, Het²aryloxyalkyl, aminocarbonyl, aminoalkanoyl, and aminoalkyl, optionally unsubstituted or substituted by one or more substituents independently selected from the group comprising consisting of alkyl, aralkyl, aryl. Het¹. Het². cycloalkyl. alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen or-and amino, optionally unsubstituted, mono- or disubstituted wherein the substituents are independently selected from the group comprising consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl, cycloalkylalkyl, Het¹, Het², Het¹alkyl, Het²alkyl, Het¹amino, Het²amino, Het¹alkylamino, Het²alkylamino, Het¹thio, Het²thio, Het¹alkylthio, Het²alkylthio, Het¹oxy and Het²oxy, OR¹¹, SR^{11} , $SO_2NR^{11}R^{12}$, $SO_2N(OH)R^{11}$, CN, $CR^{11}=NR^{12}$, $S(O)R^{11}$, SO_2R^{11} , $CR^{11}=N(OR^{12})$, N_3 , NO_2 , $NR^{11}R^{12}, \ N(OH)R^{11}, \ C(O)R^{11}, \ C(S)R^{11}, \ CO_2R^{11}, \ C(O)sR^{11}, \ C(O)NR^{11}R^{12}, \ C(S)NR^{11}R^{12},$ $C(O)N(OH)R^{12}$, $C(S)N(OH)R^{11}$, $NR^{11}C(O)R^{12}$, $NR^{11}C(S)R^{12}$, $N(OH)C(O)R^{12}$, $N(OH)C(S)R^{11}$, $NR^{11}CO_2R^{12}, \quad NR^{11}C(O)NR^{12}R^{13}, \quad \text{and} \quad NR^{11}C(S)NR^{12}R^{13}, \quad N(OH)CO_2R^{11}, \quad NR^{11}C(O)SR^{12}, \quad NR^$ $N(OH)C(O)NR^{11}R^{12}$, $N(OH)C(S)NR^{11}R^{12}$, $NR^{11}C(O)N(OH)R^{12}$, $NR^{11}C(S)N(OH)R^{12}$, NR¹¹SO₂R¹², NHSO₂NR¹¹R¹², NR¹¹SO₂NHR¹², P(O)(OR¹¹)(OR¹²), wherein t is an integer

between 1 and 2, R¹¹, R¹² and R¹³ are each independently selected from the group eomprising consisting of hydrogen, alkyl, alkenyl, and alkynyl; and

wherein R⁵ is selected from the group comprising consisting of hydrogen, oxo, hydroxyl, alkyl, alkenyl, alkynyl, alkanediyl, alkyloxy, alkyloxyalkyl, arylcarbonylalkyl, alkylcarbonylalkyl, alkanoyl, cycloalkylcarbonylalkyl, cycloalkyl, cycloalkylalkyl, cycloalkylalkanoyl, aryl, aralkyl, arylalkenyl, arylcarbonyloxy, aryloxycarbonyloxy, aralkoxycarbonyloxy, aryloxyalkyl, haloalkyl, hydroxyalkyl, aralkanoyl, aryloxycarbonylalkyl, aryloxyalkanoyl, Het¹, Het¹alkyl, Het¹oxy, Het¹oxyalkyl, Het¹aryl, Het¹aralkyl, Het¹cycloalkyl, Het¹aryloxyalkyl, Het¹arovl, Het². Het²oxy. Het²alkyl; Het²oxyalkyl, Het²aralkyl, Het²cycloalkyl, Het²aryl, Het²alkanoyl, Het²aralkanoyl, Het²aroyl, Het²aryloxyalkyl, aminocarbonyl, aminoalkanoyl, and aminoalkyl, optionally unsubstituted or substituted by one or more substituents independently selected from the group eomprisingconsisting of alkyl, aralkyl, aryl, Het¹, Het², cycloalkyl, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen or and amino, optionally unsubstituted, mono- or disubstituted wherein the substituents are independently selected from the group comprising consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, aylaminoalkoxy, aralkylamino, arylaminoalkylthio, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylthioalkylthio, alkylamino, cycloalkyl, cycloalkylalkyl, Het¹, Het², Het¹alkyl, Het²alkyl, Het²amino, Het²amino, Het¹alkylamino, Het²alkylamino, Het¹thio, Het²thio, Het¹alkylthio, Het²alkylthio, Het¹oxy and Het^2oxy , OR^{11} , SR^{11} , $SO_2NR^{11}R^{12}$, $SO_2N(OH)R^{11}$, CN, $CR^{11}=NR^{12}$, $S(O)R^{11}$, SO_2R^{11} , $CR^{11}=N(OR^{12})$, N_3 , NO_2 , $NR^{11}R^{12}$, $N(OH)R^{11}$, $C(O)R^{11}$, $C(S)R^{11}$, CO_2R^{11} , $C(O)sR^{11}$, $C(O)NR^{11}R^{12}$, $C(S)NR^{11}R^{12}$, $C(O)N(OH)R^{12}$, $C(S)N(OH)R^{11}$, $NR^{11}C(O)R^{12}$, $NR^{11}C(S)R^{12}$, $N(OH)C(O)R^{12}$, $N(OH)C(S)R^{11}$, $NR^{11}CO_2R^{12}$, $NR^{11}C(O)NR^{12}R^{13}$, and $NR^{11}C(S)NR^{12}R^{13}$, N(OH)CO₂R¹¹, NR¹¹C(O)SR¹², N(OH)C(O)NR¹¹R¹², N(OH)C(S)NR¹¹R¹², NR¹¹C(O)N(OH)R¹², NR¹¹C(S)N(OH)R¹², NR¹¹SO₂R¹², NHSO₂NR¹¹R¹², NR¹¹SO₂NHR¹², and P(O)(OR¹¹)(OR¹²), wherein t is an integer between 1 and 2, R¹¹, R¹² and R¹³ are each independently selected from the group comprising consisting of hydrogen, alkyl, alkenyl, and alkynyl.

2. (Currently amended) A compound according to claim 1, having the formula I or a pharmaceutically acceptable salt thereof, formula I

$$R_4$$
 R_5
 R_2
 R_1
 R_3
 R_3

wherein R¹ is selected from the group comprisingconsisting of alkyl, alkenyl, alkynyl, alkyloxy, alkyloxyalkyl, alkylthioalkyl, alkyloxycarbonyl, alkylthiocarbonyl, alkanoyl, cycloalkylalkyl, cycloalkylcarbonyl, cycloalkylalkanoyl, cycloalkylthiocarbonyl, cycloalkylalkoxycarbonyl, cycloalkylalkoxythiocarbonyl, cycloalkylthioalkyl, alkylcarbonyloxyalkyl, arylcarbonyloxyalkyl, cycloalkylcarbonyloxyalkyl, silyloxyalkyl, aralkyl, arylalkenyl, arylcarbonyl, aryloxycarbonyl, arylthiocarbonyl, aralkoxycarbonyl, arylalkylthiocarbonyl, aryloxyalkyl, arylthioalkyl, haloalkyl, hydroxyalkyl, aralkanoyl, aroyl, aryloxycarbonylalkyl, aryloxyalkanoyl, carboxyl, formyl, alkenylcarbonyl, alkynylcarbonyl, Het¹, Het¹alkyl, Het¹oxyalkyl, Het¹aryl, Het¹aralkyl, Het¹cycloalkyl, Het¹carbonyl, Het¹alkoxycarbonyl, Het¹alkylthiocarbonyl, Het¹oxycarbonyl, Het¹aralkanoyl, Het¹thiocarbonyl, Het^laryloxyalkyl, Het lalkyloxyalkyl, Het^lalkanoyl, Het¹arylthioalkyl, Het¹aryloxycarbonyl, Het¹aralkoxycarbonyl, Het¹aroyl, Het¹oxyalkylcarbonyl, Het¹aryloxyalkylcarbonyl, Het¹alkyloxyalkylcarbonyl, Het¹carbonyloxyalkyl, Het²alkyl; Het²oxyalkyl, Het¹aralkylcarbonyloxyalkyl, Het¹alkylcarbonyloxyalkyl, Het²alkyloxyalkyl, Het²aralkyl, Het²carbonyl, Het²oxycarbonyl, Het²thiocarbonyl, Het²alkanoyl, Het²alkylthiocarbonyl, Het²alkoxycarbonyl, Het²aralkanovl, Het²aralkoxycarbonyl, Het²aryloxycarbonyl, Het²aroyl, Het²aryloxyalkyl, Het²arylthioalkyl, Het²oxyalkylcarbonyl, Het²carbonyloxyalkyl, Het²alkyloxyalkylcarbonyl, Het²aryloxyalkylcarbonyl, Het²alkylcarbonyloxyalkyl, Het²aralkylcarbonyloxyalkyl, cyano, aminocarbonyl, aminoalkanoyl, aminoalkyl, CR⁶=NR⁷ or-and CR⁶=N(OR⁷), with R⁶ and R⁷ being independently selected from the group comprising consisting of hydrogen, hydroxyl, alkyl, aryl, Het¹ alkyl, Het¹ aryl,

alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylamino;

wherein R² and R³ are independently selected from the group comprising consisting of hydroxyl, alkyloxy, alkylsilyloxy, arylsilyloxy, alkyloxyalkyloxy, cycloalkyloxy cycloalkylalkyloxy, aralkyloxy, aryloxyalkyloxy, silyloxy, alkylcarbonyloxy, arylcarbonyloxy, cycloalkylcarbonyloxy, haloalkyloxy, hydroxyalkyloxy, aralkanoyloxy, aroyloxy, aryloxycarbonylalkyloxy, formyloxy, Het¹alkyloxy, Het¹oxy, Het¹oxyalkyloxy, Het¹aryloxy, Het aralkyloxy, Het cycloalkyloxy, Het carbonyloxy, Het oxycarbonyloxy, Het alkanoyloxy, Het aralkanovloxy, Het arvloxyalkyloxy, Het arovl, Het oxy, Het alkyloxy; Het oxyalkyloxy, Het²aralkyloxy, Het²cycloalkyloxy, Het²alkanoyloxy, Het²aralkanoyloxy, Het²carbonyloxyl, Het²aryloxy, and Het²aryloxyalkyloxy,

wherein R¹ R² and R³ are optionally unsubstituted or substituted by one or more substituents independently selected from the group comprising consisting of alkyl, aralkyl, aryl, Het¹, Het², cycloalkyl, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen or amino, optionally unsubstituted, mono- or disubstituted wherein the substituents are independently selected from the group comprising consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl, cycloalkylalkyl, Het¹, Het², Het¹alkyl, Het²alkyl, Het¹amino, Het²amino, Het²alkylamino, Het¹thio, Het²thio, Het¹alkylthio, Het²alkylthio, Het¹oxy and Het²oxy, OR⁸, SR⁸, SO₂NR⁸R⁹, $SO_2N(OH)R^8$, CN, $CR^8=NR^9$, $S(O)R^8$, SO_2R^8 , $CR^8=N(OR^9)$, N_3 , NO_2 , NR^8R^9 , $N(OH)R^8$, $C(O)R^{8}$, $C(S)R^{8}$, $CO_{7}R^{8}$, $C(O)sR^{8}$, $C(O)NR^{8}R^{9}$, $C(S)NR^{8}R^{9}$, $C(O)N(OH)R^{9}$, $C(S)N(OH)R^{8}$, NR8C(O)R9, NR8C(S)R9, N(OH)C(O)R9, N(OH)C(S)R8, NR8CO2R9, NR8C(O)NR9R10, and $NR^8C(S)NR^9R^{10}$, $N(OH)CO_2R^8$, $NR^8C(O)SR^9$, $N(OH)C(O)NR^8R^9$, $N(OH)C(S)NR^8R^9$, $NR^8C(O)N(OH)R^9, \quad NR^8C(S)N(OH)R^9, \quad NR^8SO_2R^9, \quad NHSO_2NR^8R^9, \quad NR^8SO_2NHR^9, \quad \underline{and}$ $P(O)(OR^8)(OR^9)$,

with t being an integer between 1 and 2, and R⁸ R⁹ and R¹⁰ being each independently selected from the group comprising consisting of hydrogen, hydroxyl, alkyl, aryl, Het¹, Het¹ alkyl, Het¹ aryl,

alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylamino;

wherein R⁴ is oxo and R⁵ is hydrogen or alkyl.

3. (Currently amended) A compound according to claim 1,

wherein R¹ is selected from the group comprising consisting of hydrogen, alkyl, hydroxyalkyl, alkenyl, alkyloxyalkyl, alkylthioalkyl, alkyloxycarbonyl, alkanoyl, cycloalkylalkyl, cycloalkylcarbonyl, cycloalkylalkoxycarbonyl, cycloalkylthioalkyl, cycloalkylalkanoyl, alkylcarbonyloxyalkyl, arylcarbonyloxyalkyl, cycloalkylcarbonyloxyalkyl, silyloxyalkyl, aralkyl, arylalkenyl, arylcarbonyl, aryloxycarbonyl, aralkoxycarbonyl, arylthioalkyl, aralkanoyl, aroyl, carboxyl, formyl, alkenylcarbonyl, alkynylcarbonyl, Het¹oxyalkyl, Het¹alkoxycarbonyl, Het¹oxycarbonyl, Het¹aryloxyalkyl, Het¹alkyloxyalkyl, Het¹arylthioalkyl, Het¹aryloxycarbonyl, Het¹oxyalkylcarbonyl, Het¹alkyloxyalkylcarbonyl, Het¹aralkoxycarbonyl, Het¹alkylcarbonyloxyalkyl, Het¹aryloxyalkylcarbonyl, Het¹carbonyloxyalkyl, Het²alkyloxyalkyl, Het²oxycarbonyl, Het¹aralkylcarbonyloxyalkyl, Het²oxyalkyl, Het²aryloxyalkyl, Het²aryloxycarbonyl, Het²alkoxycarbonyl, Het²aralkoxycarbonyl, Het²arylthioalkyl, Het²oxyalkylcarbonyl, Het²alkyloxyalkylcarbonyl, Het²aryloxyalkylcarbonyl, Het²carbonyloxyalkyl, Het²alkylcarbonyloxyalkyl, Het²aralkylcarbonyloxyalkyl, CR⁶=NR⁷, and $CR^6=N(OR^7)$,

with R⁶ and R⁷ being independently selected from the group comprising of hydrogen, hydroxyl, alkyl, aryl, Het¹, Het¹alkyl, Het¹aryl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylamino; wherein R² and R³ are independently selected from the group comprising of hydroxyl, alkyloxy, alkyloxyalkyloxy, cycloalkyloxy, cycloalkylalkyloxy, aralkyloxy, aryloxyalkyloxy, silyloxy, alkylcarbonyloxy, arylcarbonyloxy, cycloalkylcarbonyloxy, aryloxycarbonylalkyloxy, formyloxy, Het¹alkyloxy, Het¹oxy, Het¹oxyalkyloxy, Het¹aryloxy, Het¹aralkyloxy, Het¹aralkyloxy, Het¹aralkyloxy, Het²aralkyloxy, Het²aralkyloxy, Het²aralkyloxy, Het²aralkyloxy, Het²aralkyloxy, Het²aralkyloxy, Het²aralkyloxy, Het²aryloxyalkyloxy, Het²aryloxyalkyloxy,

wherein R¹ R² and R³ are unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, aralkyl, aryl, Het¹, Het², cycloalkyl, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen and amino, unsubstituted, mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl, cycloalkylalkyl, Het¹, Het², Het¹alkyl, Het²alkyl, Het amino, Het alkylamino, Het alkylamino, Het thio, Het thio, Het thio, Het alkylthio, Het²alkylthio, Het¹oxy and Het²oxy, OR⁸, SR⁸, SO₂NR⁸R⁹, SO₂N(OH)R⁸, CN, CR⁸=NR⁹, $S(O)R^8$, SO_2R^8 , $CR^8=N(OR^9)$, N_3 , NO_2 , NR^8R^9 , $N(OH)R^8$, $C(O)R^8$, $C(S)R^8$, CO_2R^8 , $C(O)sR^8$, $C(O)NR^8R^9$, $C(S)NR^8R^9$, $C(O)N(OH)R^9$, $C(S)N(OH)R^8$, $NR^8C(O)R^9$, $NR^8C(S)R^9$, $N(OH)C(O)R^9$, $N(OH)C(S)R^8$, $NR^8CO_2R^9$, $NR^8C(O)NR^9R^{10}$, $NR^8C(S)NR^9R^{10}$, $N(OH)CO_2R^8$, $NR^8C(O)SR^9$, $N(OH)C(O)NR^8R^9$, $N(OH)C(S)NR^8R^9$, $NR^8C(O)N(OH)R^9$, $NR^8C(S)N(OH)R^9$, NR⁸SO₂R⁹, NHSO₂NR⁸R⁹, NR⁸SO₂NHR⁹, and P(O)(OR⁸)(OR⁹), with t being an integer between 1 and 2, and R⁸ R⁹ and R¹⁰ being each independently selected from the group consisting of hydrogen, hydroxyl, alkyl, arvl, Het¹ alkyl, Het¹ aryl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylamino; wherein R¹-R²-and R³-are-optionally substituted by one or more substituents independently selected from the group indicated in claim-1; and wherein R⁴ is selected from the group comprising consisting of, oxo, hydroxyalkyl, alkyl, alkenyl, alkylcarbonylalkyl, arylcarbonylalkyl and R⁵ is hydrogen, oxo, hydroxyl, hydroxyalkyl, alkyl,

4. (Currently amended) A compound according to claim 1 or 2,

alkenyl, alkylcarbonylalkyl, arylcarbonylalkyl.

wherein R¹ is selected from the group <u>comprising_consisting_of</u> alkyl, alkenyl, alkynyl, alkyloxyalkyl, alkyloxycarbonyl, alkanoyl, cycloalkylalkyl, cycloalkylalkoxycarbonyl, cycloalkylalkanoyl, cycloalkylalkoxycarbonyl, cycloalkylthioalkyl, alkylcarbonyloxyalkyl, arylcarbonyloxyalkyl, cycloalkylcarbonyloxyalkyl, silyloxyalkyl, aralkyl, arylalkenyl,

arylcarbonyl, aryloxycarbonyl, aralkoxycarbonyl, arylthioalkyl, aralkanoyl, aroyl, carboxyl, formyl, alkenylcarbonyl, alkynylcarbonyl, Het¹oxyalkyl, Het¹alkoxycarbonyl, Het¹oxycarbonyl, Het¹aryloxyalkyl, Het^lalkyloxyalkyl, Het¹arylthioalkyl, Het aryloxycarbonyl, Het¹aralkoxycarbonyl, Het¹oxyalkylcarbonyl, Het¹alkyloxyalkylcarbonyl, Het¹carbonyloxyalkyl, Het¹alkylcarbonyloxyalkyl, Het¹aryloxyalkylcarbonyl, Het²oxyalkyl, Het¹aralkylcarbonyloxyalkyl, Het²alkyloxyalkyl, Het²oxycarbonyl, Het²alkoxycarbonyl, Het²aralkoxycarbonyl, Het²aryloxycarbonyl, Het²aryloxyalkyl, Het²arylthioalkyl, Het²oxyalkylcarbonyl, Het²alkyloxyalkylcarbonyl, Het²aryloxyalkylcarbonyl, Het²carbonyloxyalkyl, Het²alkylcarbonyloxyalkyl, Het²aralkylcarbonyloxyalkyl, CR⁶=NR⁷, and $CR^6=N(OR^7)$,

with R⁶ and R⁷ being independently selected from the group eomprisingconsisting of hydrogen, hydroxyl, alkyl, aryl, Het¹, Het¹alkyl, Het¹aryl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylamino; wherein R² and R³ are independently selected from the group eomprisingconsisting of hydroxyl, alkyloxy, alkyloxyalkyloxy, cycloalkyloxy cycloalkylalkyloxy, aralkyloxy, aryloxyalkyloxy, silyloxy, alkylcarbonyloxy, arylcarbonyloxy, cycloalkylcarbonyloxy, aryloxycarbonylalkyloxy, formyloxy, Het¹alkyloxy, Het¹oxy, Het¹oxyalkyloxy, Het¹aryloxy, Het¹aralkyloxy, Het¹aralkyloxy, Het²aryloxyalkyloxy, Het²aryloxyalkyloxy, Het²aryloxyalkyloxy, Het²aryloxyalkyloxy, Het²aryloxyalkyloxy, Het²aryloxyalkyloxy, Het²aryloxyalkyloxy, Het²aryloxyalkyloxy,

wherein R¹ R² and R³ are unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, aralkyl, aryl, Het¹, Het², cycloalkyl, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)_t, hydroxy, cyano, halogen and amino, unsubstituted, mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkylamino, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl, cycloalkylakyl, Het¹, Het², Het¹alkyl, Het²alkyl, Het¹amino, Het¹alkylamino, Het¹alkylamino, Het¹alkylamino, Het¹alkylamino, Het¹alkylamino, Het¹alkylamino, Het¹alkylamino, Het¹alkylamino, Het¹alkylthio,

Het²alkylthio, Het¹oxy and Het²oxy, OR⁸, SR⁸, SO₂NR⁸R⁹, SO₂N(OH)R⁸, CN, CR⁸=NR⁹, S(O)R⁸, SO₂R⁸, CR⁸=N(OR⁹), N₃, NO₂, NR⁸R⁹, N(OH)R⁸, C(O)R⁸, C(S)R⁸, CO₂R⁸, C(O)sR⁸, C(O)NR⁸R⁹, C(S)NR⁸R⁹, C(O)N(OH)R⁹, C(S)N(OH)R⁸, NR⁸C(O)R⁹, NR⁸C(S)R⁹, N(OH)C(O)R⁹, N(OH)C(S)R⁸, NR⁸CO₂R⁹, NR⁸C(O)NR⁹R¹⁰, NR⁸C(S)NR⁹R¹⁰, N(OH)CO₂R⁸, NR⁸C(O)SR⁹, N(OH)C(O)NR⁸R⁹, N(OH)C(S)NR⁸R⁹, NR⁸C(O)N(OH)R⁹, NR⁸C(S)N(OH)R⁹, NR⁸SO₂R⁹, NHSO₂NR⁸R⁹, NR⁸SO₂NHR⁹, and P(O)(OR⁸)(OR⁹),

with t being an integer between 1 and 2, and R⁸ R⁹ and R¹⁰ being each independently selected from the group consisting of hydrogen, hydroxyl, alkyl, aryl, Het¹, Het¹alkyl, Het¹aryl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylamino; wherein R¹ R² and R³ are optionally substituted by one or more substituents independently selected from the group indicated in claim 1; and

wherein R⁴ is oxo and R⁵ is hydrogen or alkyl.

5. (Currently amended) A compound according to claim 1, or 2 or 4,

wherein R¹ is selected from the group eomprisingconsisting of alkyl, alkenyl, alkynyl, alkyloxyalkyl, alkylthioalkyl, alkanoyl, cycloalkylalkyl, cycloalkylalkyl, cycloalkylalkanoyl, cycloalkylthioalkyl, silyloxyalkyl, aralkyl, arylalkenyl, arylcarbonyl, arylthioalkyl, aralkanoyl, aroyl, carboxyl, formyl, alkenylcarbonyl, alkynylcarbonyl, Het¹oxyalkyl, Het¹aryloxyalkyl, Het¹arylthioalkyl, Het¹oxyalkylcarbonyl, Het¹alkyloxyalkylcarbonyl, Het¹aryloxyalkylcarbonyl, Het²aryloxyalkyl, Het²arylthioalkyl, Het²aryloxyalkylcarbonyl, Het²arylthioalkyl, Het²aryloxyalkylcarbonyl, CR⁶=NR⁷, and CR⁶=N(OR⁷),

with R⁶ and R⁷ being independently selected from the group comprising consisting of hydrogen, hydroxyl, alkyl, aryl, Het¹, Het¹alkyl, Het¹aryl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylamino;

wherein R² and R³ are independently selected from the group <u>comprising consisting of hydroxyl</u>, alkylcarbonyloxy, arylcarbonyloxy, cycloalkylcarbonyloxy, formyloxy, Het¹carbonyloxy, Het¹aralkanoyloxy, Het²carbonyloxyl, Het²alkanoyloxy, and Het²aralkanoyloxy,

wherein R¹ R² and R³ are unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, aralkyl, aryl, Het¹, Het², cycloalkyl, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen and amino, unsubstituted, mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, aralkylthio, aryloxyalkylthio. arylaminoalkylthio. arylthioalkoxy, arylthioalkylamino, arylthioalkylthio, alkylamino, cycloalkyl, cycloalkylalkyl, Het¹, Het², Het¹alkyl, Het²alkyl, Het amino, Het alkylamino, Het alkylamino, Het alkylamino, Het thio, Het thio, Het alkylthio, Het²alkylthio, Het¹oxy and Het²oxy, OR⁸, SR⁸, SO₂NR⁸R⁹, SO₂N(OH)R⁸, CN, CR⁸=NR⁹, $S(O)R^8$, SO_2R^8 , $CR^8=N(OR^9)$, N_3 , NO_2 , NR^8R^9 , $N(OH)R^8$, $C(O)R^8$, $C(S)R^8$, CO_2R^8 , $C(O)sR^8$, $C(S)NR^8R^9$, $C(O)N(OH)R^9$, $C(S)N(OH)R^8$, $NR^8C(O)R^9$, N(OH)C(O)R⁹, N(OH)C(S)R⁸, NR⁸CO₂R⁹, NR⁸C(O)NR⁹R¹⁰, NR⁸C(S)NR⁹R¹⁰, N(OH)CO₂R⁸, $NR^8C(O)SR^9$, $N(OH)C(O)NR^8R^9$, $N(OH)C(S)NR^8R^9$, $NR^8C(O)N(OH)R^9$, $NR^8C(S)N(OH)R^9$, NR⁸SO₂R⁹, NHSO₂NR⁸R⁹, NR⁸SO₂NHR⁹, and P(O)(OR⁸)(OR⁹), with t being an integer between 1 and 2, and R⁸ R⁹ and R¹⁰ being each independently selected

with t being an integer between 1 and 2, and R^o R^o and R^{ro} being each independently selected from the group consisting of hydrogen, hydroxyl, alkyl, aryl, Het¹, Het¹alkyl, Het¹aryl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylamino; wherein R¹ R² and R³ are optionally substituted by one or more substituents independently selected from the group indicated in claim 1; and

wherein R⁴ is oxo and R⁵ is hydrogen or alkyl.

6. (Currently amended) A compound according to any of claims 1, or 2, 4 to 5, wherein R¹ is selected from the group comprising of alkyl, alkenyl, alkynyl, alkyloxyalkyl, alkylthioalkyl, cycloalkylalkyl, cycloalkylthioalkyl, silyloxyalkyl, aralkyl, arylalkenyl, arylthioalkyl, carboxyl, formyl, Het¹oxyalkyl, Het¹aryloxyalkyl, Het¹alkyloxyalkyl, Het¹arylthioalkyl, Het²arylthioalkyl, Het²arylthioalkyl, eptionally unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, aralkyl, aryl, Het¹, Het², cycloalkyl, alkyloxycarbonyl, carboxyl,

aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)_t, hydroxy, cyano, halogen and amino, unsubstituted, mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl, cycloalkylalkyl, Het¹, Het², Het¹alkyl, Het²alkyl, Het¹amino, Het²amino, Het¹alkylamino, Het²alkylamino, Het¹thio, Het²thio, Het¹alkylthio, Het²alkylthio, Het¹oxy and Het²oxy, OR⁸, SR⁸, SO₂NR⁸R⁹, SO₂N(OH)R⁸, CN, CR⁸=NR⁹, S(O)R⁸, SO₂R⁸, CR⁸=N(OR⁹), N₃, NO_2 , NR^8R^9 , $N(OH)R^8$, $C(O)R^8$, $C(S)R^8$, CO_2R^8 , $C(O)sR^8$, $C(O)NR^8R^9$, $C(S)NR^8R^9$, $C(O)N(OH)R^9$, $C(S)N(OH)R^8$, $NR^8C(O)R^9$, $NR^8C(S)R^9$, $N(OH)C(O)R^9$, $N(OH)C(S)R^8$ $NR^8C(O)NR^9R^{10}$. $NR^8C(S)NR^9R^{10}$, $N(OH)CO_2R^8$. NR⁸C(O)SR⁹. $NR^8CO_2R^9$, $N(OH)C(O)NR^8R^9$, $N(OH)C(S)NR^8R^9$, $NR^8C(O)N(OH)R^9$, $NR^8C(S)N(OH)R^9$, $NR^8SO_2R^9$, NHSO₂NR⁸R⁹, NR⁸SO₂NHR⁹, and P(O)(OR⁸)(OR⁹),

with t being an integer between 1 and 2, and R⁸ R⁹ and R¹⁰ being each independently selected from the group consisting of hydrogen, hydroxyl, alkyl, aryl, Het¹, Het¹alkyl, Het¹aryl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylaminoindicated in claim 1; wherein R² and R³ are hydroxyl and wherein R⁴ is oxo and R⁵ is hydrogen.

(Currently amended) A compound according to any of claims 1, or 2, 4 to 6, wherein R¹ 7. is selected from the group comprising consisting of alkyl, alkenyl, alkynyl, alkyloxyalkyl, arylalkenyl, carboxyl, formyl, Het^loxyalkyl, cycloalkylalkyl, silyloxyalkyl, aralkyl, Het aryloxyalkyl, Het alkyloxyalkyl, Het oxyalkyl, Het alkyloxyalkyl, and Het aryloxyalkyl, optionally unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, aralkyl, aryl, Het¹, Het², cycloalkyl, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen and amino, unsubstituted, mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy,

arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl, cycloalkylalkyl, Het¹, Het², Het¹alkyl, Het²alkyl, Het¹amino, Het²amino, Het¹alkylamino, Het²alkylamino, Het¹thio, Het²thio, Het¹alkylthio, Het²alkylthio, Het¹oxy and Het²oxy, OR³, SR³, SO₂NR³R³, SO₂N(OH)R³, CN, CR³=NR³, S(O)R³, SO₂R³, CR³=N(OR³), N₃, NO₂, NR³R³, N(OH)R³, C(O)R³, C(S)R³, CO₂R³, C(O)SR³, C(O)NR³R³, C(S)NR³R³, C(O)NR³R³, C(O)NRSR³, C(O)NRSR³, C(O)NRSR³, C(O)NRSR³, C(O)NRSR³, NRSC(O)NRSR³, NRSC(O)R³, NRSC(O)R³, N(OH)C(O)R³, NRSC(O)R³, NRSC(O)R³, N(OH)CO₂R³, NRSC(O)SR³, N(OH)C(O)RSR³, NRSC(O)RSR³, NRSC(O)RSR3, NRSC(O)RSR3,

with t being an integer between 1 and 2, and R⁸ R⁹ and R¹⁰ being each independently selected from the group consisting of hydrogen, hydroxyl, alkyl, aryl, Het¹, Het¹alkyl, Het¹aryl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylaminoindicated in claim 1; wherein R² and R³ are hydroxyl, R⁴ is oxo and R⁵ is hydrogen.

- 8. (Currently amended) A compound according to any of claims 1, or 2, 4 to 7, wherein R^1 is selected from the group comprising of alkyl, carboxyl, formyl; wherein R^2 and R^3 are hydroxyl, and wherein R^4 is oxo and R^5 is hydrogen.
- 9. (Original) A compound according to claim 8, wherein R^1 is formyl, R^2 and R^3 are hydroxyl R^4 is oxo and R^5 is hydrogen.
- 10. (Currently amended) A compound according to claim 1 or 3, wherein R¹ is selected from the group comprising of hydrogen, alkyl, alkenyl, alkynyl, alkyloxyalkyl, hydroxyalkyl, alkylthioalkyl, alkanoyl, cycloalkylalkyl, cycloalkylalkyl, cycloalkylalkyl, cycloalkylalkyl, cycloalkylalkyl, arylalkenyl, arylcarbonyl, cycloalkylalkanoyl, cycloalkylthioalkyl, silyloxyalkyl, aralkyl, arylalkenyl, arylcarbonyl, arylthioalkyl, aralkanoyl, aroyl, carboxyl, formyl, alkenylcarbonyl, alkynylcarbonyl, Het¹aryloxyalkyl, Het¹aryloxyalkyl, Het¹aryloxyalkyl, Het¹aryloxyalkyl, Het²alkyloxyalkyl, Het²alkyloxyalkyl, Het²alkyloxyalkyl, Het²alkyloxyalkyl,

Het²aryloxyalkyl, Het²arylthioalkyl, Het²oxyalkylcarbonyl, Het²alkyloxyalkylcarbonyl, Het²aryloxyalkylcarbonyl, CR⁶=NR⁷, and CR⁶=N(OR⁷),

with R⁶ and R⁷ being independently selected from the group eomprising of hydrogen, hydroxyl, alkyl, aryl, Het¹ alkyl, Het¹ aryl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylamino;

wherein R² and R³ are independently selected from the group eomprising of hydroxyl, alkylcarbonyloxy, arylcarbonyloxy, cycloalkylcarbonyloxy, formyloxy, Het¹carbonyloxy, Het¹aralkanoyloxy, Het²aralkanoyloxy, Het²aralkanoyloxy, Het²aralkanoyloxy,

wherein R¹ R² and R³ are unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, aralkyl, aryl, Het¹, Het², cycloalkyl, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O), hydroxy, cyano, halogen and amino, unsubstituted, mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl, cycloalkylalkyl, Het¹, Het², Het¹alkyl, Het²alkyl, Het¹amino, Het²amino, Het¹alkylamino, Het²alkylamino, Het¹thio, Het²thio, Het¹alkylthio, Het²alkylthio, Het¹oxy and Het²oxy, OR⁸, SR⁸, SO₂NR⁸R⁹, SO₂N(OH)R⁸, CN, CR⁸=NR⁹, $S(O)R^8$, SO_2R^8 , $CR^8=N(OR^9)$, N_3 , NO_2 , NR^8R^9 , $N(OH)R^8$, $C(O)R^8$, $C(S)R^8$, CO_2R^8 , $C(O)sR^8$, $\underline{C(O)NR^8R^9}$, $\underline{C(S)NR^8R^9}$, $\underline{C(O)N(OH)R^9}$, $\underline{C(S)N(OH)R^8}$, $\underline{NR^8C(O)R^9}$, $\underline{NR^8C(S)R^9}$, $N(OH)C(O)R^9$, $N(OH)C(S)R^8$, $NR^8CO_2R^9$, $NR^8C(O)NR^9R^{10}$, $NR^8C(S)NR^9R^{10}$, $N(OH)CO_2R^8$, $NR^8C(O)SR^9$, $N(OH)C(O)NR^8R^9$, $N(OH)C(S)NR^8R^9$, $NR^8C(O)N(OH)R^9$, $NR^8C(S)N(OH)R^9$, NR⁸SO₂R⁹, NHSO₂NR⁸R⁹, NR⁸SO₂NHR⁹, and P(O)(OR⁸)(OR⁹),

with t being an integer between 1 and 2, and R⁸ R⁹ and R¹⁰ being each independently selected from the group consisting of hydrogen, hydroxyl, alkyl, aryl, Het¹, Het¹alkyl, Het¹aryl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylamino; wherein R¹ R² and R³ are optionally substituted by one or more substituents independently selected from the group indicated in claim 1; and

wherein R^4 is oxo, hydroxyalkyl, alkyl, alkenyl, arylcarbonylaryl, <u>or</u>alkylcarbonylalkyl and R^5 is hydrogen or alkyl.

- 11. (Currently amended) A compound according to any of claims 1, 3 or 10claim 1 or 3, wherein R¹ is hydroxyalkyl, R² and R³ are hydroxyl, R⁴ is oxo and R⁵ is hydrogen.
- 12. (Currently amended) A compound according to any of claims 1, 3 or 10 claim 1 or 3, wherein R¹ is selected from the group comprising consisting of hydrogen, alkyl, alkenyl, alkynyl, hydroxyalkyl, alkyloxyalkyl, alkylthioalkyl, cycloalkylalkyl, cycloalkylthioalkyl, silyloxyalkyl, arylalkenyl, arylthioalkyl, carboxyl, formyl, Het¹oxyalkyl, Het¹aryloxyalkyl, Het¹alkyloxyalkyl, Het²arylthioalkyl, Het²oxyalkyl, Het²alkyloxyalkyl, Het²aryloxyalkyl, and Het² arylthioalkyl, optionally—unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, aralkyl, aryl, Het¹, Het², cycloalkyl, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O), hydroxy, cyano, halogen and amino, unsubstituted, mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl, cycloalkylalkyl, Het¹, Het², Het¹alkyl, Het²alkyl, Het¹amino, Het²amino, Het¹alkylamino, Het²alkylamino, Het¹thio, Het²thio, Het¹alkylthio, Het²alkylthio, Het¹oxy and Het²oxy, OR⁸, SR⁸, SO₂NR⁸R⁹, SO₂N(OH)R⁸, CN, CR⁸=NR⁹, $S(O)R^8$, SO_2R^8 , $CR^8=N(OR^9)$, N_3 , NO_2 , NR^8R^9 , $N(OH)R^8$, $C(O)R^8$, $C(S)R^8$, CO_2R^8 , $C(O)sR^8$, $C(O)NR^8R^9$, $C(S)NR^8R^9$, $C(O)N(OH)R^9$, $C(S)N(OH)R^8$, $NR^8C(O)R^9$, $NR^8C(S)R^9$, $N(OH)C(O)R^9$, $N(OH)C(S)R^8$, $NR^8CO_2R^9$, $NR^8C(O)NR^9R^{10}$, $NR^8C(S)NR^9R^{10}$, $N(OH)CO_2R^8$, $NR^8C(O)SR^9$, $N(OH)C(O)NR^8R^9$, $N(OH)C(S)NR^8R^9$, $NR^8C(O)N(OH)R^9$, $NR^8C(S)N(OH)R^9$. NR8SO₂R9, NHSO₂NR8R9, NR8SO₂NHR9, and P(O)(OR8)(OR9),

with t being an integer between 1 and 2, and R⁸ R⁹ and R¹⁰ being each independently selected from the group consisting of hydrogen, hydroxyl, alkyl, aryl, Het¹, Het¹ alkyl, Het¹ aryl, alkenyl, alkynyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino

and arylthiocarbonylaminoindicated in claim 1; wherein R² and R³ are hydroxyl and wherein R⁴ is hydroxyalkyl, arylcarbonylalkyl, or alkylcarbonylalkyl and R⁵ is hydrogen.

13. (Currently amended) A compound according to any of claims 1, 3, 10 or 12claim 1 or 3, wherein R¹ is selected from the group comprising consisting of hydrogen, alkyl, alkenyl, alkynyl, hydroxyalkyl, alkyloxyalkyl, cycloalkylalkyl, silyloxyalkyl, aralkyl, arylalkenyl, carboxyl, formyl, Het oxyalkyl, Het aryloxyalkyl, Het alkyloxyalkyl, Het oxyalkyl, Het alkyloxyalkyl, and Het²aryloxyalkyl, optionally—unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, aralkyl, aryl, Het¹, Het², cycloalkyl, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O), hydroxy, cyano, halogen and amino, unsubstituted, mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl, cycloalkylalkyl, Het¹, Het², Het¹alkyl, Het²alkyl, Het¹amino, Het²amino, Het¹alkylamino, Het²alkylamino, Het¹thio, Het²thio, Het¹alkylthio, Het²alkylthio, Het¹oxy and Het²oxy, OR⁸, SR⁸, SO₂NR⁸R⁹, SO₂N(OH)R⁸, CN, CR⁸=NR⁹, $S(O)R^8$, SO_2R^8 , $CR^8 = N(OR^9)$, N_3 , NO_2 , NR^8R^9 , $N(OH)R^8$, $C(O)R^8$, $C(S)R^8$, CO_2R^8 , $C(O)sR^8$, $C(O)NR^8R^9$, $C(S)NR^8R^9$, $C(O)N(OH)R^9$, $C(S)N(OH)R^8$, $NR^8C(O)R^9$, $NR^8C(S)R^9$, $N(OH)C(O)R^9$, $N(OH)C(S)R^8$, $NR^8CO_2R^9$, $NR^8C(O)NR^9R^{10}$, $NR^8C(S)NR^9R^{10}$, $N(OH)CO_2R^8$, $NR^8C(O)SR^9$, $N(OH)C(O)NR^8R^9$, $N(OH)C(S)NR^8R^9$, $NR^8C(O)N(OH)R^9$, $NR^8C(S)N(OH)R^9$, NR⁸SO₂R⁹, NHSO₂NR⁸R⁹, NR⁸SO₂NHR⁹, and P(O)(OR⁸)(OR⁹),

with t being an integer between 1 and 2, and R⁸ R⁹ and R¹⁰ being each independently selected from the group consisting of hydrogen, hydroxyl, alkyl, aryl, Het¹, Het¹alkyl, Het¹aryl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylaminoindicated in claim 1; wherein R² and R³ are hydroxyl, R⁴ is hydroxyalkyl, arylcarbonylalkyl, or alkylcarbonylalkyl and R⁵ is hydrogen.

14. (Currently amended) A compound according to any of claims 1, 3, 10, 12 or 13 claim 1 or $\underline{3}$, wherein R^1 is selected from the group comprising of alkyl, hydroxyalkyl, carboxyl, and formyl; wherein R^2 and R^3 are hydroxyl, and wherein R^4 is arylcarbonylalkyl and R^5 is hydrogen.

- 15. (Original) A compound according to claim 14, wherein R¹ is hydroxyalkyl, R² and R³ are hydroxyl, R⁴ is arylcarbonylalkyl and R⁵ is hydrogen.
- 16. (Original) A compound according to claim 15, wherein R^1 is hydroxymethylene, R^2 and R^3 are hydroxyl, R^4 is phenylcarbonylmethylene and R^5 is hydrogen.
- 17. (Currently amended) A compound having the formula Ia or a pharmaceutically acceptable salt or ester thereof,

formula Ia

$$R_4$$
 R_5
 R_2
 R_1
 R_3

wherein R¹ is selected from the group comprising consisting of alkyl, alkenyl, alkynyl, alkyloxyalkyl, alkylthioalkyl, alkyloxycarbonyl, alkanoyl, cycloalkylalkyl, cycloalkylcarbonyl, cycloalkylalkanoyl, cycloalkylalkoxycarbonyl, cycloalkylthioalkyl, alkylcarbonyloxyalkyl, arylcarbonyloxyalkyl, cycloalkylcarbonyloxyalkyl, silyloxyalkyl, aralkyl, arylalkenyl, arylcarbonyl, aryloxycarbonyl, aralkoxycarbonyl, arylthioalkyl, aralkanoyl, aroyl, silyloxyalkyl, carboxyl, alkenylcarbonyl, alkynylcarbonyl, Het¹oxyalkyl, Het¹alkoxycarbonyl, Het¹oxycarbonyl, Het¹aryloxyalkyl, Het^lalkyloxyalkyl, Het^larylthioalkyl, Het¹aryloxycarbonyl, Het¹aralkoxycarbonyl, Het¹oxyalkylcarbonyl, Het¹alkyloxyalkylcarbonyl, Het¹aryloxyalkylcarbonyl, Het¹carbonyloxyalkyl, Het¹alkylcarbonyloxyalkyl, Het¹aralkylcarbonyloxyalkyl, Het²oxyalkyl, Het²alkyloxyalkyl, Het²oxycarbonyl,

Het²arlkoxycarbonyl, Het²aralkoxycarbonyl, Het²aryloxycarbonyl, Het²aryloxyalkyl, Het²aryloxyalkylcarbonyl, Het²aryloxyalkylcarbonyl, Het²aryloxyalkylcarbonyl, Het²aryloxyalkylcarbonyl, Het²aryloxyalkyl, Het²aryloxyalkyl, Het²aryloxyalkyl, Het²aryloxyalkyl, Het²aryloxyalkyl, CR⁶=NR⁷, and CR⁶=N(OR⁷),

with R⁶ and R⁷ being independently selected from the group comprising consisting of hydrogen, hydroxyl, alkyl, aryl, Het¹ alkyl, Het¹ aryl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylamino;

wherein R² and R³ are independently selected from the group consisting of hydroxyl, alkyloxy, alkyloxy, arylsilyloxy, alkyloxydkyloxy, cycloalkyloxy cycloalkylalkyloxy, aralkyloxy, aryloxyalkyloxy, silyloxy, alkylcarbonyloxy, arylcarbonyloxy, cycloalkylcarbonyloxy, haloalkyloxy, hydroxyalkyloxy, aralkanoyloxy, aroyloxy, aryloxycarbonylalkyloxy, formyloxy, Het¹alkyloxy, Het¹oxy, Het¹oxyalkyloxy, Het¹aryloxy, Het¹aralkyloxy, Het¹aryloxy, Het¹aryloxy, Het¹aryloxy, Het¹aryloxy, Het¹aryloxy, Het²aryloxyalkyloxy, Het²aryloxyalkyloxy, Het²aralkanoyloxy, Het²aralkanoyloxy, Het²aralkanoyloxy, Het²aryloxyalkyloxy, Het²aryloxyalkyloxy, Het²aryloxyalkyloxy, Het²aryloxyalkyloxy, Het²aryloxyalkyloxy, Het²aryloxyalkyloxy, Het²aryloxyalkyloxy, Het²aryloxyalkyloxy, Het²aryloxyalkyloxy,

wherein R² and R³ have the same definition as in claim 1;

wherein R¹ R² and R³ are unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, aralkyl, aryl, Het¹, Het², cycloalkyl, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen and amino, unsubstituted, mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, aryloxyalkylamino, aryloxyalkylamino, aryloxyalkylthio, aryloxyalkylthio, aryloxyalkylthio, aryloxyalkylthio, aryloxyalkylthio, aryloxyalkylthio, aryloxyalkylthio, het¹alkyl, Het²alkyl, Het¹amino, Het²alkylamino, Het²alkylamino, Het²alkylamino, Het²alkylthio, Het²thio, Het¹alkylthio, Het²alkylthio, Het³alkylthio, Het³alkylthi

wherein R⁴ and R⁵ are hydrogen or alkyl.

N(OH)C(O)R⁹, N(OH)C(S)R⁸, NR⁸CO₂R⁹, NR⁸C(O)NR⁹R¹⁰, NR⁸C(S)NR⁹R¹⁰, N(OH)CO₂R⁸, NR⁸C(O)SR⁹, N(OH)C(O)NR⁸R⁹, N(OH)C(S)NR⁸R⁹, NR⁸C(O)N(OH)R⁹, NR⁸C(S)N(OH)R⁹, NR⁸SO₂R⁹, NHSO₂NR⁸R⁹, NR⁸SO₂NHR⁹, and P(O)(OR⁸)(OR⁹), with t being an integer between 1 and 2, and R⁸ R⁹ and R¹⁰ being each independently selected from the group consisting of hydrogen, hydroxyl, alkyl, aryl, Het¹, Het¹alkyl, Het¹aryl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylamino; wherein R⁴ R² and R³ are optionally substituted by one or more substituents independently selected from the group as indicated in claim 1, and

18. (Currently amended) A compound according to claim 17,

wherein R¹ is selected from the group comprising of alkyl, alkenyl, alkynyl, alkyloxyalkyl, alkylthioalkyl, alkanoyl, cycloalkylalkyl, cycloalkylalkyl, cycloalkylalkanoyl, cycloalkylthioalkyl, silyloxyalkyl, aralkyl, arylalkenyl, arylcarbonyl, arylthioalkyl, aralkanoyl, aroyl, silyloxyalkyl, carboxyl, alkenylcarbonyl, alkynylcarbonyl, Het¹aryloxyalkyl, Het¹aryloxyalkyl, Het¹arylthioalkyl, Het¹oxyalkylcarbonyl, Het¹alkyloxyalkylcarbonyl, Het²aryloxyalkylcarbonyl, Het²aryloxyalkylcarbonyl, Het²arylthioalkyl, Het²aryloxyalkylcarbonyl, Het²aryloxyalkylcarbonyl, CR⁶=NR⁷, and CR⁶=N(OR⁷), with R⁶ and R⁷ being independently selected from the group comprising consisting of hydrogen, hydroxyl, alkyl, aryl, Het¹, Het¹alkyl, Het¹aryl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylamino;

wherein R² and R³ are independently selected from the group consisting of hydroxyl, alkyloxy, alkyloxy, alkyloxy, cycloalkyloxy cycloalkyloxy, aralkyloxy, aralkyloxy, aryloxyalkyloxy, silyloxy, alkyloxydoxy, aryloxyalkyloxy, cycloalkyloxy, cycloalkyloxy, cycloalkyloxy, hydroxyalkyloxy, aralkanoyloxy, aryloxycarbonyloxy, formyloxy, haloalkyloxy, hydroxyalkyloxy, aralkanoyloxy, aroyloxy, aryloxycarbonylalkyloxy, formyloxy, hetlalkyloxy, Hetlaryloxy, Hetl

Het²cycloalkyloxy, Het²alkanoyloxy, Het²aralkanoyloxy, Het²carbonyloxyl, Het²aryloxy, and Het²aryloxyalkyloxy,

wherein R² and R³ have the same definition as in claim 1;

wherein R¹ R² and R³ are unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, aralkyl, aryl, Het¹, Het², cycloalkyl, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)_t, hydroxy, cyano, halogen and amino, unsubstituted, mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl, cycloalkylalkyl, Het¹, Het², Het¹alkyl, Het²alkyl, Het¹amino, Het²amino, Het¹alkylamino, Het²alkylamino, Het¹thio, Het²thio, Het¹alkylthio, Het²alkylthio, Het¹oxy and Het²oxy, OR⁸, SR⁸, SO₂NR⁸R⁹, SO₂N(OH)R⁸, CN, CR⁸=NR⁹, $S(O)R^8$, SO_2R^8 , $CR^8=N(OR^9)$, N_3 , NO_2 , NR^8R^9 , $N(OH)R^8$, $C(O)R^8$, $C(S)R^8$, CO_2R^8 , $C(O)sR^8$, $C(O)NR^8R^9$, $C(S)NR^8R^9$, $C(O)N(OH)R^9$, $C(S)N(OH)R^8$, $NR^8C(O)R^9$, $NR^8C(S)R^9$, N(OH)C(O)R⁹, N(OH)C(S)R⁸, NR⁸CO₂R⁹, NR⁸C(O)NR⁹R¹⁰, NR⁸C(S)NR⁹R¹⁰, N(OH)CO₂R⁸, $NR^8C(O)SR^9$, $N(OH)C(O)NR^8R^9$, $N(OH)C(S)NR^8R^9$, $NR^8C(O)N(OH)R^9$, $NR^8C(S)N(OH)R^9$, NR⁸SO₂R⁹, NHSO₂NR⁸R⁹, NR⁸SO₂NHR⁹, and P(O)(OR⁸)(OR⁹),

with t being an integer between 1 and 2, and R⁸ R⁹ and R¹⁰ being each independently selected from the group consisting of hydrogen, hydroxyl, alkyl, aryl, Het¹ alkyl, Het¹ aryl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylamino: wherein R¹-R²-and R³-are optionally substituted by one or more substituents independently selected from the group as indicated in claims 1, and wherein R⁴ and R⁵ are hydrogen or alkyl.

(Currently amended) A compound according to claim 17 or 18, wherein R¹ is selected 19. from the group comprising consisting of alkyl, alkenyl, alkynyl, alkyloxyalkyl, alkylthioalkyl, silyloxyalkyl, aralkyl, arylalkenyl, arylthioalkyl, cycloalkylalkyl. cycloalkylthioalkyl, silyloxyalkyl, carboxyl, Het¹oxyalkyl, Het¹aryloxyalkyl, Het¹alkyloxyalkyl, Het¹arylthioalkyl,

Het²alkyloxyalkyl, Het²aryloxyalkyl, and Het²arylthioalkyl, Het²oxyalkyl, unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, aralkyl, aryl, Het¹, Het², cycloalkyl, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen and amino, unsubstituted, mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl, cycloalkylalkyl, Het¹, Het², Het¹alkyl, Het²alkyl, Het¹amino, Het²amino, Het alkylamino, Het alkylamino, Het thio, Het thio, Het alkylthio, Het alkylthio, Het alkylthio, Het oxy and Het²oxy, OR⁸, SR⁸, SO₂NR⁸R⁹, SO₂N(OH)R⁸, CN, CR⁸=NR⁹, S(O)R⁸, SO₂R⁸, CR⁸=N(OR⁹), N₃, NO_2 , NR^8R^9 , $N(OH)R^8$, $C(O)R^8$, $C(S)R^8$, CO_2R^8 , $C(O)sR^8$, $C(O)NR^8R^9$, $C(S)NR^8R^9$, $C(O)N(OH)R^9$, $C(S)N(OH)R^8$, $NR^8C(O)R^9$, $NR^8C(S)R^9$, $N(OH)C(O)R^9$, $N(OH)C(S)R^8$, $NR^{8}C(O)NR^{9}R^{10}$, $NR^8C(S)NR^9R^{10}$. $N(OH)CO_2R^8$. NR⁸C(O)SR⁹, $NR^8CO_2R^9$, $\underline{N(OH)C(O)NR^8R^9}, \quad \underline{N(OH)C(S)NR^8R^9}, \quad \underline{NR^8C(O)N(OH)R^9}, \quad \underline{NR^8C(S)N(OH)R^9}, \quad \underline{NR^8SO_2R^9}, \\ \underline{NR^8SO_2R^9}, \quad \underline{NR^8SO_2R^9}, \quad \underline{NR^8SO_2R^9}, \underline{NR^8SO_2R^9}, \quad \underline{NR^8SO_2R^9}, \quad \underline{NR^8SO_2R^9}, \quad \underline{NR^8SO_2R^9}, \\ \underline{NR^8SO_2R^9}, \quad \underline{NR^8SO$ NHSO₂NR⁸R⁹, NR⁸SO₂NHR⁹, and P(O)(OR⁸)(OR⁹), with t being an integer between 1 and 2, and R⁸ R⁹ and R¹⁰ being each independently selected

with t being an integer between 1 and 2, and R° R° and R¹0 being each independently selected from the group consisting of hydrogen, hydroxyl, alkyl, aryl, Het¹, Het¹alkyl, Het¹aryl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylaminoindicated in claim 1; wherein R² and R³ are hydroxyl and wherein R⁴ and R⁵ are hydrogen or alkyl.

20. (Currently amended) A compound according to any of claims 17 to 19claim 17 or 18, wherein R¹ is selected from the group eomprising of alkyl, alkenyl, alkynyl, alkyloxyalkyl, cycloalkylalkyl, silyloxyalkyl, aralkyl, arylalkenyl, carboxyl, Hetloxyalkyl, Hetlaryloxyalkyl, Hetlar

halogen and amino, unsubstituted, mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl, cycloalkylalkyl, Het¹, Het², Het¹alkyl, Het²alkyl, Het¹amino, Het²amino, Het¹ alkylamino, Het² alkylamino, Het¹ thio, Het² thio, Het¹ alkylthio, Het² alkylthio, Het¹ oxy and Het²oxy, OR⁸, SR⁸, SO₂NR⁸R⁹, SO₂N(OH)R⁸, CN, CR⁸=NR⁹, S(O)R⁸, SO₂R⁸, CR⁸=N(OR⁹), N₃, NO_2 , NR^8R^9 , $N(OH)R^8$, $C(O)R^8$, $C(S)R^8$, CO_2R^8 , $C(O)sR^8$, $C(O)NR^8R^9$, $C(S)NR^8R^9$. $C(O)N(OH)R^9$, $C(S)N(OH)R^8$, $NR^8C(O)R^9$, $NR^8C(S)R^9$, $N(OH)C(O)R^9$, $N(OH)C(S)R^8$. $NR^8C(O)NR^9R^{10}$. $NR^8C(S)NR^9R^{10}$, $N(OH)CO_2R^8$, NR⁸C(O)SR⁹. $NR^8CO_2R^9$, $N(OH)C(O)NR^8R^9$, $N(OH)C(S)NR^8R^9$, $NR^8C(O)N(OH)R^9$, $NR^8C(S)N(OH)R^9$, $NR^8SO_2R^9$, NHSO₂NR⁸R⁹, NR⁸SO₂NHR⁹, and P(O)(OR⁸)(OR⁹),

with t being an integer between 1 and 2, and R⁸ R⁹ and R¹⁰ being each independently selected from the group consisting of hydrogen, hydroxyl, alkyl, aryl, Het¹, Het¹alkyl, Het¹aryl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylamino indicated in claim 1; wherein R² and R³ are hydroxyl and wherein R⁴ and R⁵ are hydrogen.

21. (Currently amended) A compound having the formula Ib or a pharmaceutically acceptable salt or ester thereof,

formula Ib

$$R_4$$
 R_5
 R_2
 R_1
 R_3
 R_3

wherein R¹ is selected from the group comprising of alkenyl, alkynyl, alkyloxyalkyl, alkylthioalkyl, alkyloxycarbonyl, alkanoyl, cycloalkylalkyl, cycloalkylcarbonyl,

cycloalkylalkanoyl, cycloalkylalkoxycarbonyl, cycloalkylthioalkyl, alkylcarbonyloxyalkyl, arylcarbonyloxyalkyl, cycloalkylcarbonyloxyalkyl, silyloxyalkyl, aralkyl, arylalkenyl, arylcarbonyl, aryloxycarbonyl, aralkoxycarbonyl, arylthioalkyl, aralkanoyl, aroyl, silyloxyalkyl, carboxyl, alkenylcarbonyl, alkynylcarbonyl, Het¹oxyalkyl, Het¹alkoxycarbonyl, Het¹oxycarbonyl, Het^laryloxyalkyl, Het lalkyloxyalkyl, Het^larylthioalkyl, Het¹aryloxycarbonyl, Het¹aralkoxycarbonyl, Het¹oxyalkylcarbonyl, Het¹alkyloxyalkylcarbonyl, Het¹aryloxyalkylcarbonyl, Het¹carbonyloxyalkyl, Het¹alkylcarbonyloxyalkyl, Het¹aralkylcarbonyloxyalkyl, Het²oxyalkyl, Het²alkyloxyalkyl, Het²oxycarbonyl, Het²aryloxycarbonyl, Het²aryloxyalkyl, Het²alkoxycarbonyl. Het²aralkoxycarbonyl, Het²arylthioalkyl, Het²oxyalkylcarbonyl, Het²alkyloxyalkylcarbonyl, Het²aryloxyalkylcarbonyl, Het²carbonyloxyalkyl, Het²alkylcarbonyloxyalkyl, Het²aralkylcarbonyloxyalkyl, CR⁶=NR⁷, and $CR^6=N(OR^7)$,

with R⁶ and R⁷ being independently selected from the group eomprising of hydrogen, hydroxyl, alkyl, aryl, Het¹ alkyl, Het¹ alkyl, Het¹ alkyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylamino;

wherein R¹ is optionally—unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, aralkyl, aryl, Het¹, Het², cycloalkyl, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)_t, hydroxy, cyano, halogen and amino, unsubstituted, mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl, cycloalkylalkyl, Het¹, Het², Het¹alkyl, Het²alkyl, Het¹amino, Het²alkylamino, Het²alkylamino, Het²alkylamino, Het²alkylthio, Het²alkylthio, Het²oxy, OR⁸, SR⁸, SO₂NR⁸R⁹, SO₂N(OH)R⁸, CN, CR⁸=NR⁹, S(O)R⁸, SO₂R⁸, CR⁸=N(OR⁹), N₃, NO₂, NR⁸R⁹, N(OH)R⁸, C(O)R⁹, NR⁸C(O)R⁹, NR⁸C(S)R⁹, NR⁸C(O)R⁹, NR⁸C(S)R⁹, NR⁸C(S)R⁹, NR⁸C(S)R⁹, NR⁸C(S)R⁹, NR⁸C(S)NR⁹R¹⁰, N(OH)CO₂R⁸, NR⁸C(O)R⁹, NR⁸C(O)NR⁹R¹⁰, N(OH)CO₂R⁸, N(OH)CO₂R⁸, NR⁸C(O)NR⁹R¹⁰, N(OH)CO₂R⁸, N(OH)CO₂R⁸, NR⁸C(O)NR⁹R¹⁰, N(OH)CO₂R⁸, N(OH)CO₂R

 $NR^8C(O)SR^9$, $N(OH)C(O)NR^8R^9$, $N(OH)C(S)NR^8R^9$, $NR^8C(O)N(OH)R^9$, $NR^8C(S)N(OH)R^9$, $NR^8SO_2R^9$, $NHSO_2NR^8R^9$, $NR^8SO_2NHR^9$, and $P(O)(OR^8)(OR^9)$,

with t being an integer between 1 and 2, and R⁸ R⁹ and R¹⁰ being each independently selected from the group consisting of hydrogen, hydroxyl, alkyl, aryl, Het¹, Het¹alkyl, Het¹aryl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylaminoas indicated in claim 1, and

wherein R^2 and R^3 are hydroxyl and wherein R^4 is replaced by a double bond between the N atom and the C carbon atom of the N-containing heterocyclic ring of formula Ib; and wherein R^5 is hydrogen.

(Currently amended) A compound according to claim 21, wherein R¹ is selected from the 22. group comprising consisting of alkenyl, alkynyl, alkyloxyalkyl, cycloalkylalkyl, silyloxyalkyl, aralkyl, arylalkenyl, carboxyl, Het¹oxyalkyl, Het¹aryloxyalkyl, Het¹alkyloxyalkyl, Het²oxyalkyl, Het²alkyloxyalkyl, and Het²aryloxyalkyl, optionally-unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, aralkyl, aryl, Het¹, Het², cycloalkyl, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen and amino, unsubstituted, mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl, cycloalkylalkyl, Het¹, Het², Het alkyl, Het alkyl, Het amino, Het amino, Het alkylamino, Het alkylamino, Het thio, Het thio, Het alkylthio, Het alkylthio, Het oxy and Het oxy, OR8, SR8, SO₂NR8R9, SO₂N(OH)R8, CN, $CR^8=NR^9$, $S(O)R^8$, SO_2R^8 , $CR^8=N(OR^9)$, N_3 , NO_2 , NR^8R^9 , $N(OH)R^8$, $C(O)R^8$, $C(S)R^8$, CO_2R^8 , $C(O)sR^{8}$, $C(O)NR^{8}R^{9}$, $C(S)NR^{8}R^{9}$, $C(O)N(OH)R^{9}$, $C(S)N(OH)R^{8}$, $NR^{8}C(O)R^{9}$, $NR^{8}C(S)R^{9}$, $N(OH)C(O)R^9$, $N(OH)C(S)R^8$, $NR^8CO_2R^9$, $NR^8C(O)NR^9R^{10}$, $NR^8C(S)NR^9R^{10}$, $N(OH)CO_2R^8$, $NR^8C(O)SR^9$, $N(OH)C(O)NR^8R^9$, $N(OH)C(S)NR^8R^9$, $NR^8C(O)N(OH)R^9$, $NR^8C(S)N(OH)R^9$, NR⁸SO₂R⁹, NHSO₂NR⁸R⁹, NR⁸SO₂NHR⁹, and P(O)(OR⁸)(OR⁹),

with t being an integer between 1 and 2, and R⁸ R⁹ and R¹⁰ being each independently selected from the group consisting of hydrogen, hydroxyl, alkyl, aryl, Het¹, Het¹alkyl, Het¹aryl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylaminoindicated in claim 1; wherein R² and R³ are hydroxyl and wherein R⁴ and R⁵ are hydrogen.

(Currently amended) A compound according to claim 22, wherein R^1 is selected from the 23. group consisting of alkyl, alkenyl, alkynyl, alkyloxyalkyl, cycloalkylalkyl, silyloxyalkyl, aralkyl, arylalkenyl, carboxyl, Het¹oxyalkyl, Het¹aryloxyalkyl, Het¹alkyloxyalkyl, Het²oxyalkyl, Het²alkyloxyalkyl, and Het²aryloxyalkyl, unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, aralkyl, aryl, Het¹, Het², cycloalkyl, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O), hydroxy, cyano, halogen and amino, unsubstituted, mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, aralkylthio, arylthioalkylamino, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl, cycloalkylalkyl, Het¹, Het², Het¹alkyl, Het²alkyl, Het¹amino, Het²amino, Het¹alkylamino, Het²alkylamino, Het¹thio, Het²thio, Het¹alkylthio, Het²alkylthio, Het¹oxy and Het²oxy, OR⁸, SR⁸, SO₂NR⁸R⁹, SO₂N(OH)R⁸, CN, CR⁸=NR⁹, $S(O)R^8$, SO_2R^8 , $CR^8=N(OR^9)$, N_3 , NO_2 , NR^8R^9 , $N(OH)R^8$, $C(O)R^8$, $C(S)R^8$, CO_2R^8 , $C(O)sR^8$, $C(S)NR^8R^9$, $C(O)N(OH)R^9$, $C(S)N(OH)R^8$, $NR^8C(O)R^9$, $NR^8C(S)R^9$, $C(O)NR^8R^9$. N(OH)C(O)R⁹, N(OH)C(S)R⁸, NR⁸CO₂R⁹, NR⁸C(O)NR⁹R¹⁰, NR⁸C(S)NR⁹R¹⁰, N(OH)CO₂R⁸, $NR^8C(O)SR^9$, $N(OH)C(O)NR^8R^9$, $N(OH)C(S)NR^8R^9$, $NR^8C(O)N(OH)R^9$, $NR^8C(S)N(OH)R^9$, NR⁸SO₂R⁹, NHSO₂NR⁸R⁹, NR⁸SO₂NHR⁹, and P(O)(OR⁸)(OR⁹),

with t being an integer between 1 and 2, and R⁸ R⁹ and R¹⁰ being each independently selected from the group consisting of hydrogen, hydroxyl, alkyl, aryl, Het¹, Het¹alkyl, Het¹aryl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino, alkylthiocarbonylamino and arylthiocarbonylaminoR⁴ has the same definition as in claim 20, wherein R² and R³ are

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hydroxyl; wherein R⁴ is replaced by a double bond between the N atom and the C carbon atom of the N-containing heterocyclic ring of formula Ib; and wherein R⁵ is hydrogen.

24. (Currently amended) Compound of formula I, wherein R¹ is hydroxyalkyl, wherein R² and R³ are hydroxyl; wherein R⁴ is replaced by a double bond between the N atom and the C carbon atom of the N-containing heterocyclic ring of formula I; and wherein R⁵ is hydrogen.

25. (Currently amended) Compound of formula I or a pharmaceutically acceptable salt or ester thereof, wherein R¹, R², R³, R⁴ and R⁵ are selected as in Table A.

26. (Currently amended) A pharmaceutical composition comprising a pharmaceutically acceptable excipient and a therapeutically effective amount of a compound according to any one of claims 1–251, 17 and 21.

27. (Original) A pharmaceutical composition comprising a pharmaceutically acceptable excipient and a therapeutically effective amount of a compound according to claim 9.

28. (Original) A pharmaceutical composition comprising a pharmaceutically acceptable excipient and a therapeutically effective amount of a compound according to claim 11.

29. (Cancelled)

30. Use of A method of treating cancer comprising administering a compound according to any one of claims 1 to 251, 17, and 21 for the preparation of a medicament for treating cancer to an individual in need of such treatment.

31. (Cancelled)

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32. (Currently amended) Method-A method of treating cancer comprising administrating to an individual in need of such treatment a pharmaceutical composition according to any of claims 26 to 28 claim 26.